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Product Review

# Keepin' Time

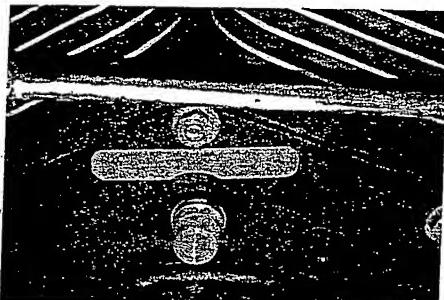
Outlaw Performance Engineering's  
Time Keeper

**Ignition timing: a procedure that will bring tears to a big man's eyes.** After all, what else is going to wash all that oil out of 'em after you've spent the last five minutes trying to see the darn timing mark in the window? Never fear, though, Outlaw Performance Engineering has the coolest, slickest, and most accurate (not to mention oil-free and easy as pie) way to time Harleys..

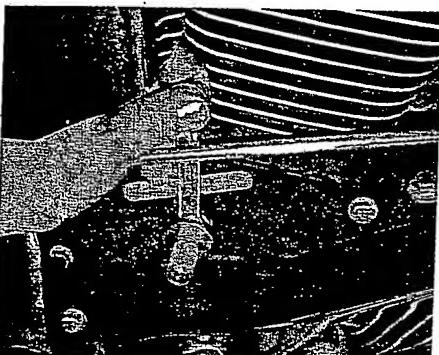
The procedure for timing any Harley engine with a timing mark on the crank behind a plug is a complete no-brainer. Just attach the Time Keeper (\$418.90) and check that the bike's timing is on the money. If it isn't, set the dial to the desired ignition setting and adjust the timing until the green light starts to flash, then tighten down the standoffs. Once you recheck the settings to make sure the timing didn't shift, you're done.

Also, when ignition timing changes are called for, such as high performance engines with serious power goodies, simply turn the dial to the required setting and retime the bike. (Yes, it really is that simple.)

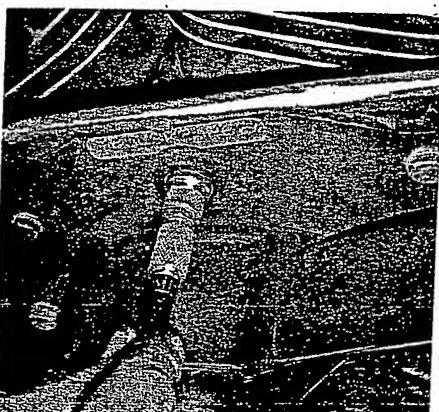
Check out the pics and captions to see how it's done. On aftermarket engines, like an S&S, you may have to make a timing mark that the unit can read, but, once again, it's a cinch. Use the tool that OPE supplies and follow the included directions (no disassembly required).



**1 Remove the timing plug and install the adapter plug into the timing hole.**



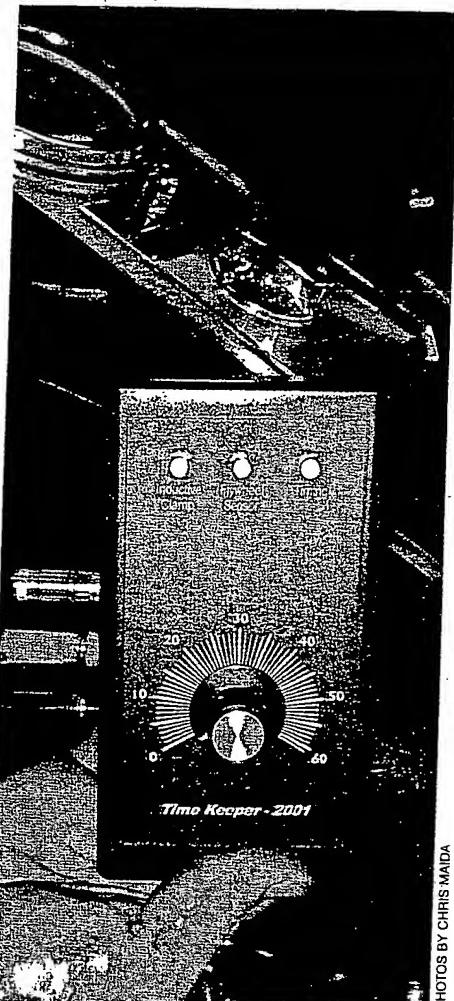
**2 Screw the sensor into the adapter until it gently bottoms out on the flywheel. Then turn it out a quarter turn and cinch it down lightly. Make sure you don't go into a flywheel balancing hole.**



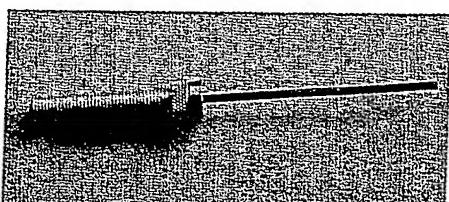
**3 Then plug the supplied sensor lead into the sensor.**



**4 Clip the inductive pickup around the appropriate plug wire, namely the front cylinder one.**



**5 Then plug the leads into the Time Keeper unit. The holes are color coded so this, too, is a no-brainer. Turn on the Time Keeper and run the engine at the specified rpm.**



**6 This is the supplied drill guide and drill (in the guide) you'll need to make or modify timing marks on other-than-Harley flywheels.**

## SOURCES

OUTLAW PERFORMANCE

ENGINEERING

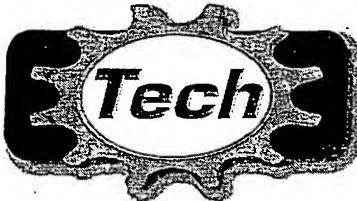
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# KEEPING TIME

The "Time Keeper" dials you in

TEXT & PHOTOS BY KE

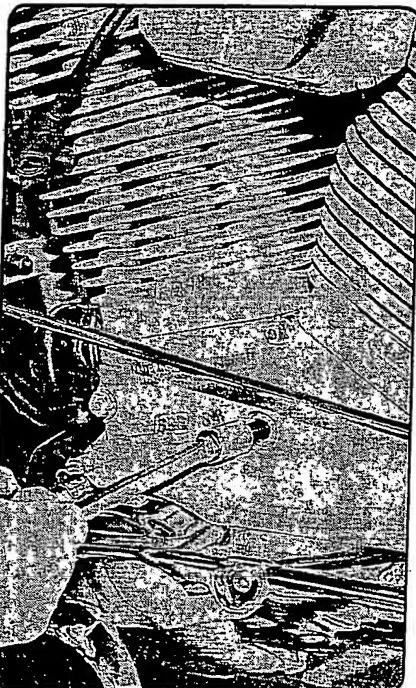
**A**nyone that has ever set the timing on a Harley has undoubtedly thought to themselves "there has to be a better way"! The problem comes from where the timing access hole in the crankcase is located. When you remove the plug to set the timing, the pressure in the crankcase blows a hot oil mist out of the hole, right into your face. The only way to avoid a face full of oil is to use one of those cheesy plastic plugs that, as most of you know, doesn't quite cut it.

Of course the other option is static timing and that's really only good for finding a starting point, since full advance and the condition of your VOES, if you're running one, can't be checked. Also, since the quality of fuel available at the pump today is suspect at best, add these facts together with precision requirements when tuning today's big-inch motors and there is a real need for a better mousetrap when it comes to timing.

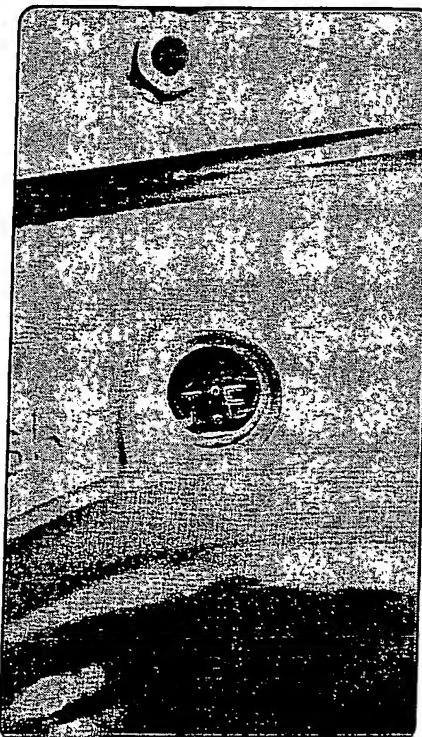
The Time Keeper from MST Instruments is the solution to achieving accurate timing while avoiding bathing in a spray of hot oil—unless you like that kind of thing. The Time Keeper features a specially designed sensor that screws into the timing hole and takes its cue from the front cylinder's TDC



mark on the flywheel. If you have aftermarket flywheels, MST also provides a special drilling fixture that allows you to drill a small mark at TDC and allows the sensor to work on any flywheels, without getting any metal in the bottom end. Here's how it's done.



1. Since we are setting the timing on our S&S-equipped Titan, we needed to drill a spot for TDC, so we removed the spark plugs, followed by the timing plug.

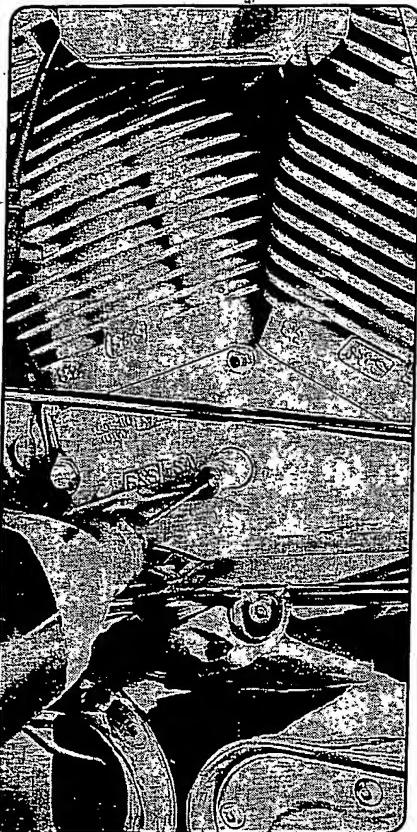


2. Next, we turned the motor over until we were at TDC on the front cylinder.

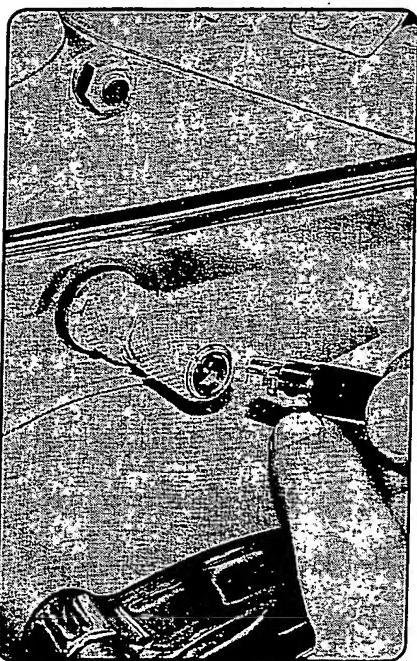


3. We used MST's drilling jig to mark TDC. The fixture you see here gets screwed into the timing hole until it bottoms on the flywheel.

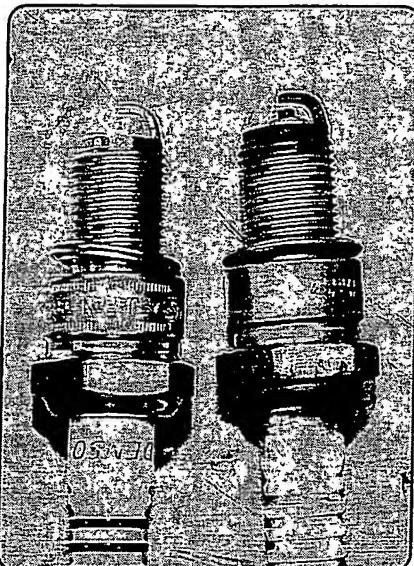
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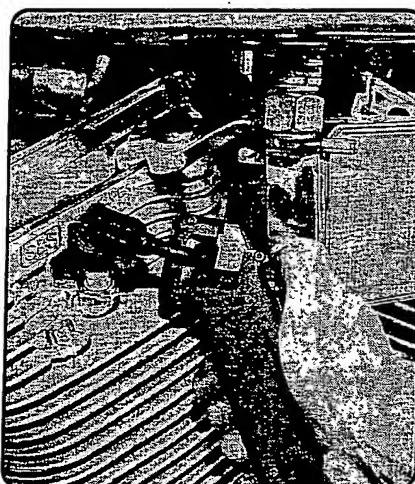
4. A hand drill is used to create a mark at TDC. There is a magnetic core in the fixture that captures the small amount of shavings created by the drill. Also, there is a pre-set collar on the drill bit to ensure you achieve the correct depth.



5. With TDC marked, the drilling jig is removed and the timing plug gets screwed in until it bottoms, then gets back out 1/4-turn, locked in place and the lead is attached. Note: Be sure the sensor bottoms on the flat part of the flywheel or damage may occur.



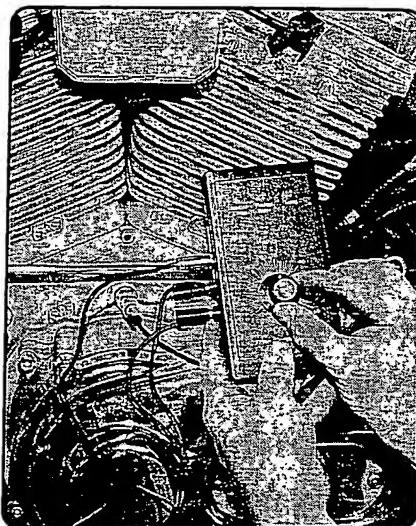
6. We took this opportunity to installed our new Denso Iridium-tip U-groove spark plugs, which require much less voltage to fire and provide a hotter spark for increased performance. We'll take any edge we can get!



7. The inductive pick-up gets clipped over the front plug wire. There is a mark indicating which direction the lead should face...



8....and the leads get plugged into the Time Keeper.



9. Before starting the motor, we set the rheostat to the desired degrees of advance...



10. ...and started the motor to see if we were close. If the green light located on the right is not on over approximately 2000 RPM, the timing is incorrect. You can rotate the dial until the green light is on, indicating your exact timing. To adjust your timing, set the dial back to the desired degrees of advance, remove your timing cover and rotate the timing plate until the green light is on and you're done! HB

## SOURCE

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